

# atmosphere'22

## BELGIUM

### **SOLVING** **NETWORK MODERNIZATION** **CHALLENGES**

Dobias van Ingen  
Aruba EMEA CTO & Sr. SE Director

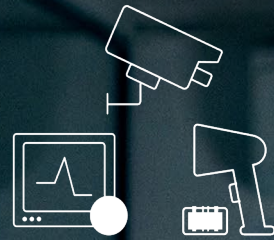
September 2022



# YOUR **PAIN** POINTS



Hybrid Work



Digital Transformation  
Acceleration



Personalized  
Experiences



Need for  
Efficiencies





# THE FUTURE IS EDGE-TO-CLOUD

## INTELLIGENT EDGE

## HYBRID CLOUD

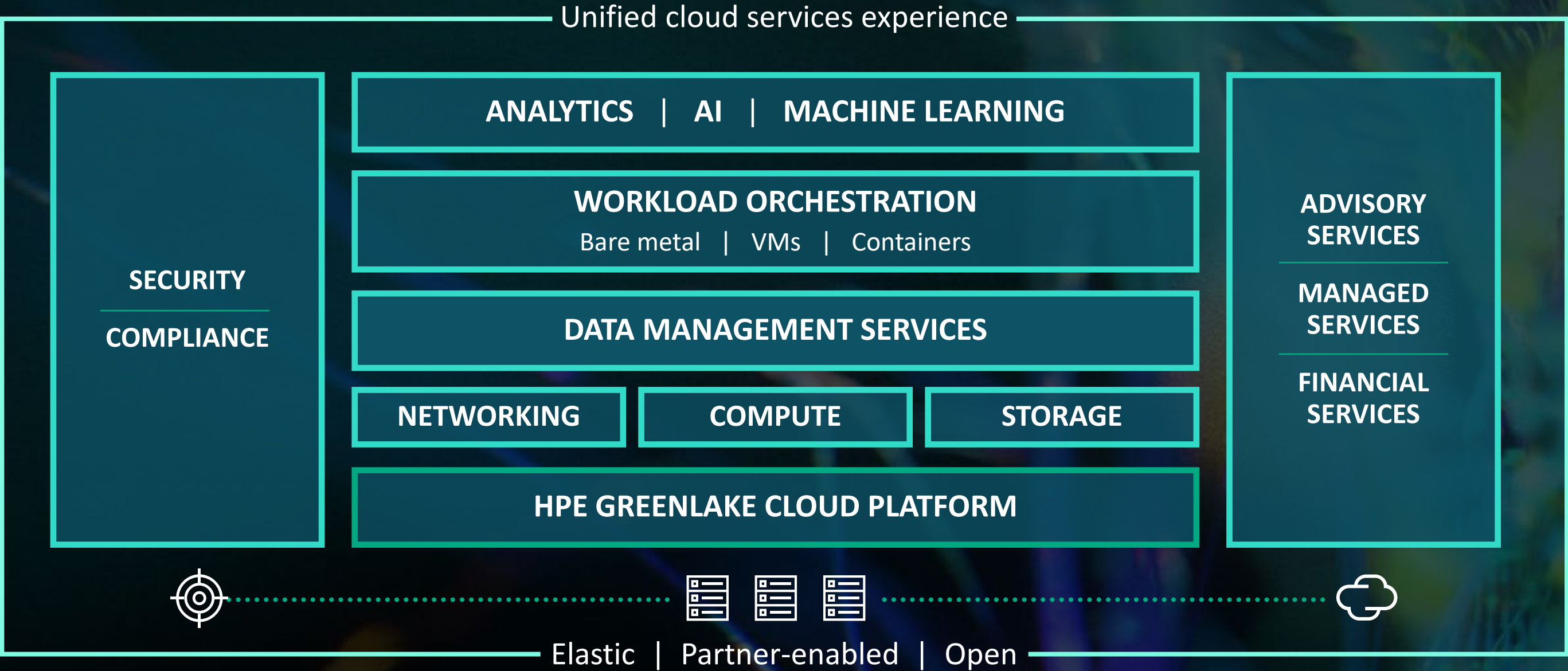


**WAN AND SECURITY  
TRANSFORMATION**



# HPE GREENLAKE

Edge-to-cloud platform





# ARUBA FRAMEWORK

INTELLIGENT EDGE

HYBRID CLOUD



CONNECT

PROTECT

ANALYZE

ACT



# ARUBA ESP SOLUTIONS FOR NETWORK MODERNIZATION



## ARUBA CENTRAL

### ANALYZE AND ACT



Onboarding



Provisioning



Orchestration



Analytics



Location



Management



AIOps

### PROTECT



Visibility



Authentication



Continuous  
Monitoring



Policy  
Enforcement



Unified Threat  
Management



Edge-to-Cloud  
Security

### CONNECT



Wireless



Wired



SD-WAN



5G



IoT



Unified  
Infrastructure

### AS-A-SERVICE



**aruba**

a Hewlett Packard  
Enterprise company

# UNIFIED INFRASTRUCTURE CONNECT





# aruba



**First Enterprise grade 6E to market**

**Great for high density**

**Building out full portfolio**

**Already looking to the future**





# ARUBA NETWORKS

## IoT APPROACH



BLE



ZIGBEE



3RD PARTY



**SOON**



USB 4G LTE MODEM

## ARUBA ECOSYSTEM PARTNERS



ses imagotag

SOLUM  
Solution provider.

HermanMiller



EnOcean

ASSA ABLOY

SIEMENS

SpaceIQ

ABB Wiliot



GE Healthcare

STANLEY  
Healthcare

HYPROS

dormakaba

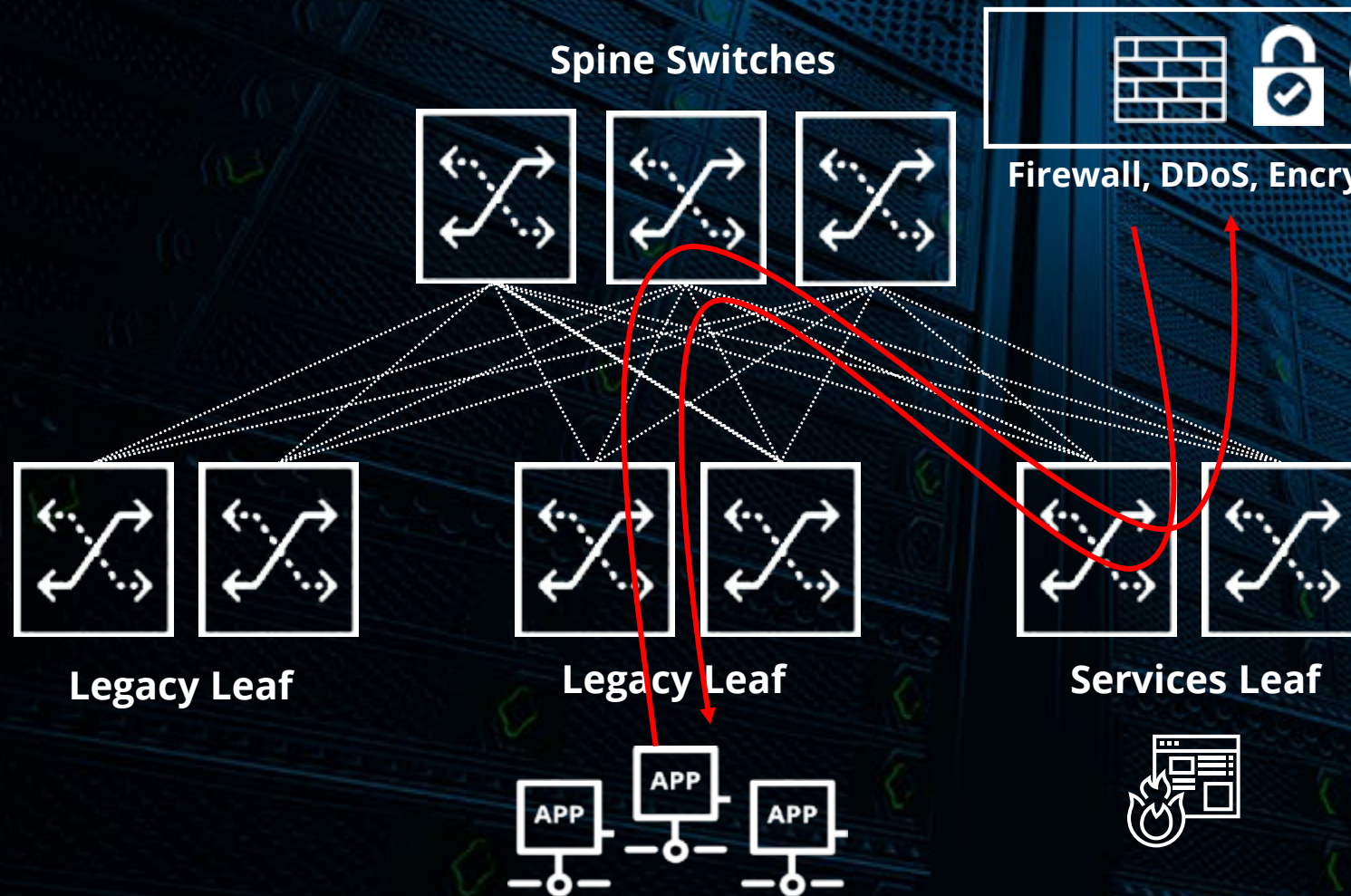
...and many more





# CHALLENGES WITH DC SERVICES TODAY

## TROMBONING TO SERVICES APPLIANCE CLUSTERS



Appliances become  
bottlenecks for east-west  
traffic

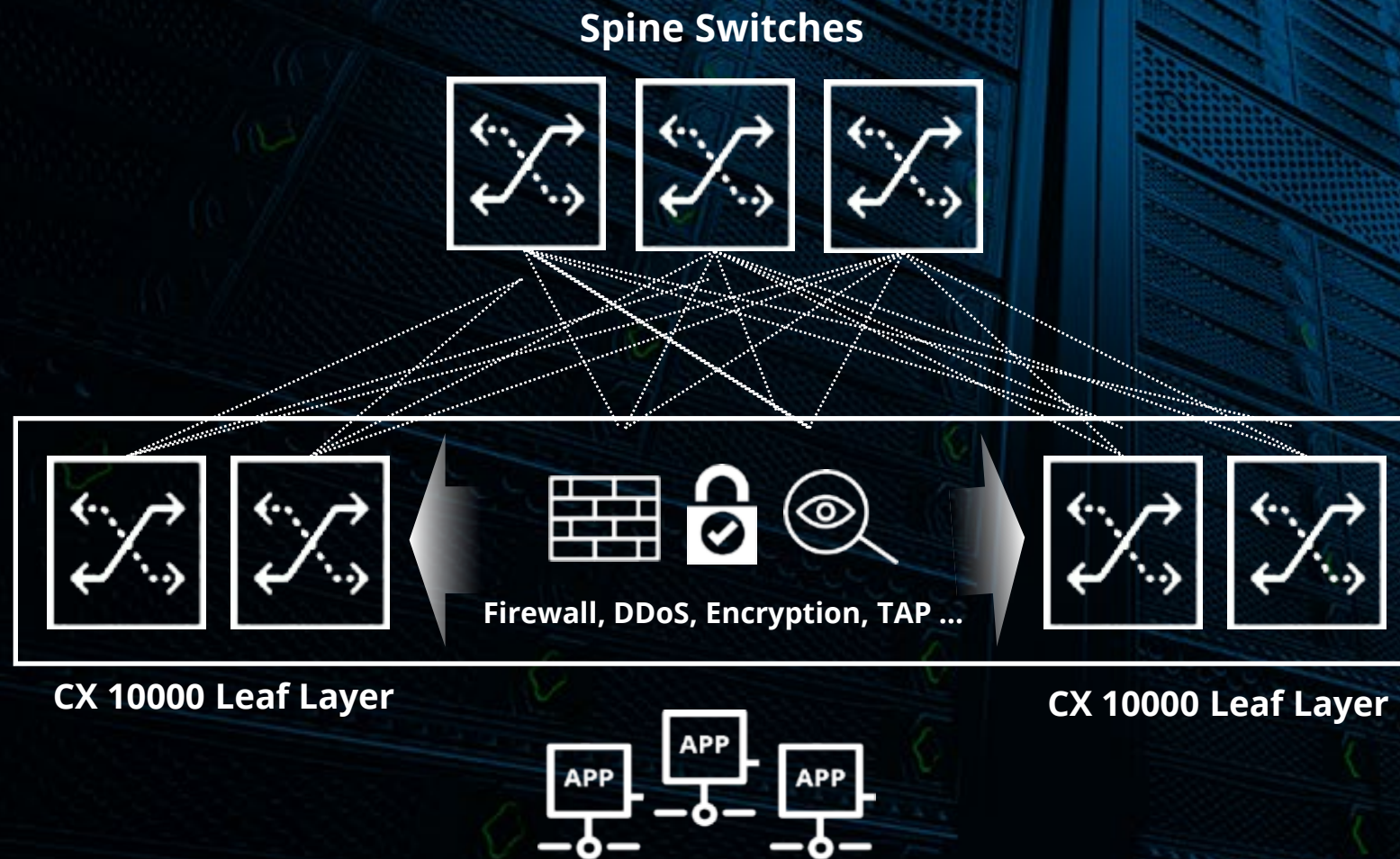
Impacts application latency,  
performance, compliance

Increases complexity and cost  
(Appliance sprawl, licensing)



# WHAT IF THERE WAS A **BETTER WAY?**

SERVICES DISTRIBUTED ACROSS ALL LEAFS



Services applied closer to applications at scale

Stateful zero-trust, firewalling, DDoS natively embedded for any workload

Reduces appliance sprawl and cost

Future proof architecture – additional functionality enabled on demand

Encryption, Stateful NAT, Load-balancing





# A NEW SWITCHING CATEGORY: DISTRIBUTED SERVICES SWITCH

## ARUBA CX 10000

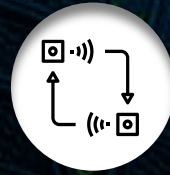
### L4-L7 Stateful Software Services



FIREWALL



DDoS



TELEMETRY



ENCRYPTION\*



NAT\*



SLB\*



Industry first smartswitch  
for the enterprise

Embedded Pensando DPU's and  
extensible services built into the  
fabric

Aruba AOS-CX and Orchestration  
(AFC)

**10X PERFORMANCE,  
100X SCALE AT 1/3 TCO**

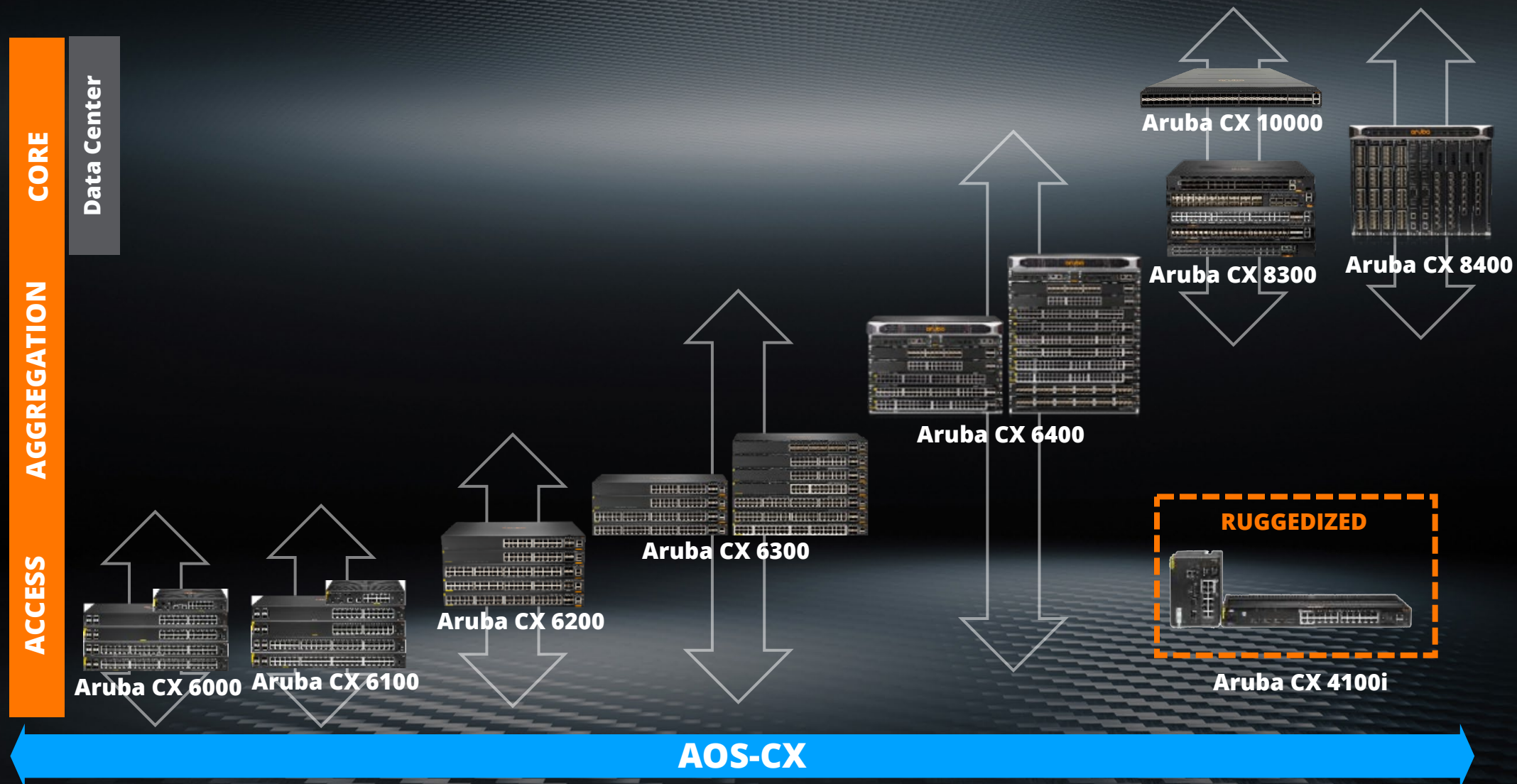


\*Roadmap for  
software enablement



# ARUBA CX SWITCHING PORTFOLIO

## SINGLE OS FROM SMB TO CAMPUS TO CORE





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a Hewlett Packard  
Enterprise company

# **EDGE-TO-CLOUD SECURITY** **PROTECT**





# Effectively Addressing Risk

**92%**

**Critical risks  
Addressed by  
Segmentation**

**67%**

**Devices with risk  
Reduced by  
Segmentation**

## **Most Effective Action For Critical Risk**

- E-W Segmentation 64.77%
- Update Firmware 18.02%
- Service Hardening 7.42%
- Change Credentials 6.70%
- N-S Segmentation 2.46%
- Incident Response 0.47%
- Configuration Change 0.16%

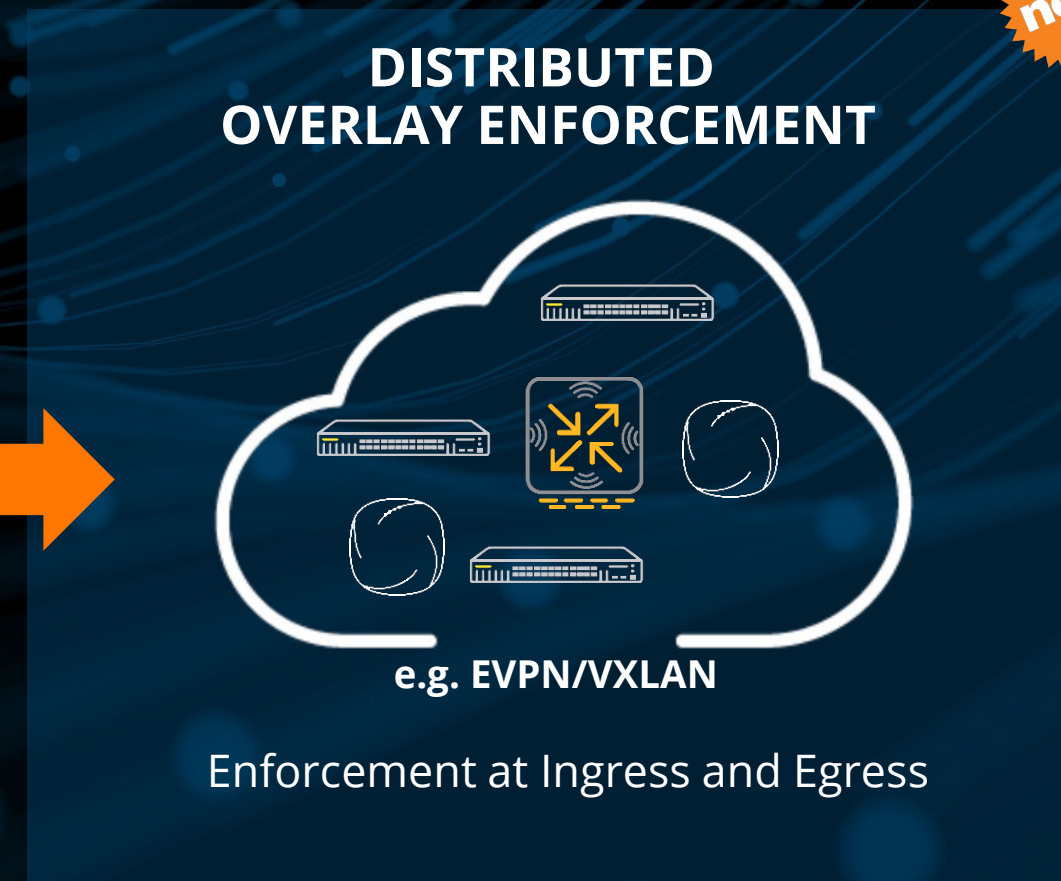




# NETCONDUCTOR EVOLUTION OF DYNAMIC SEGMENTATION WITH **CHOICE OF OVERLAYS**



ClearPass Policy Enforcement Firewall



Aruba Central NetConductor

**new**







# INTRODUCING ARUBA CENTRAL NETCONDUCTOR

Unified network overlay configuration,  
traffic and security policies at scale

Intent-based workflows  
for ease of operation

Automated configuration  
and policy propagation

Uses widely adopted  
protocols for interoperability  
and ease of adoption





# ARUBA CENTRAL NETCONDUCTOR COMPONENTS



## ARUBA CENTRAL

### ANALYZE AND ACT

Client Insights  
Network Insights



AI Ops

### PROTECT

ClearPass/Cloud Auth  
Policy Manager  
Overlay Flexibility



Edge-to-Cloud  
Security

### CONNECT

Fabric Wizard  
Group Policy ID  
Switch and Gateway Enforcement



Unified  
Infrastructure

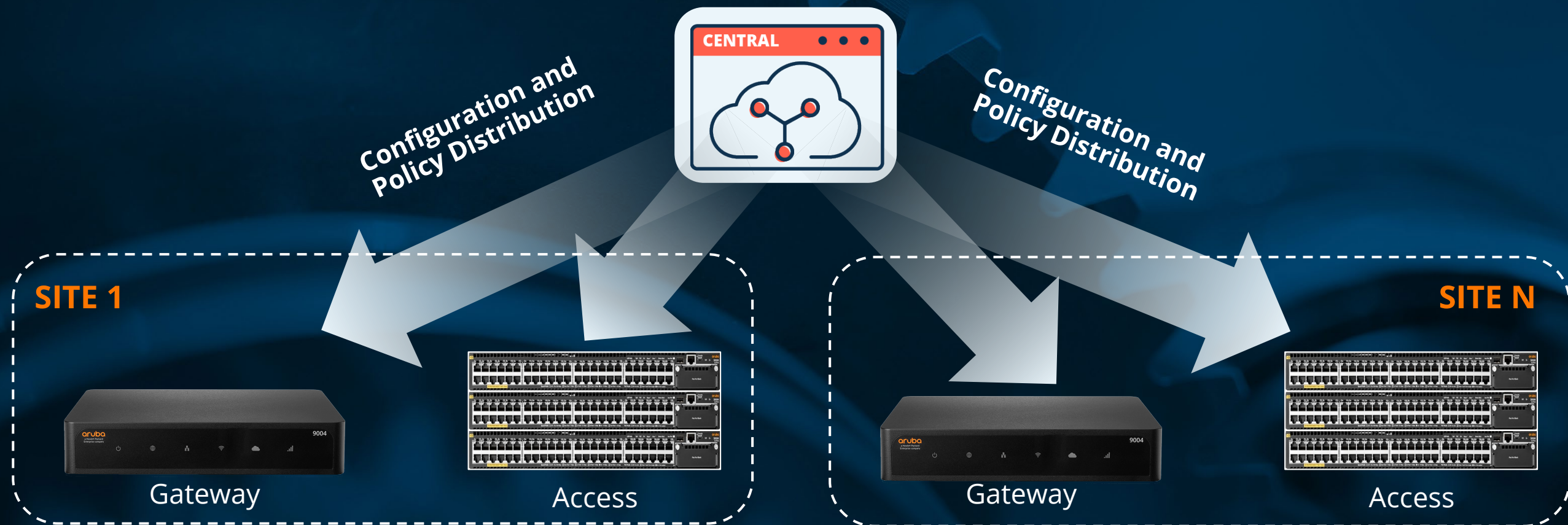
### AS-A-SERVICE





# AUTOMATION AT SCALE

**Central NetConductor**  
Management and Orchestration





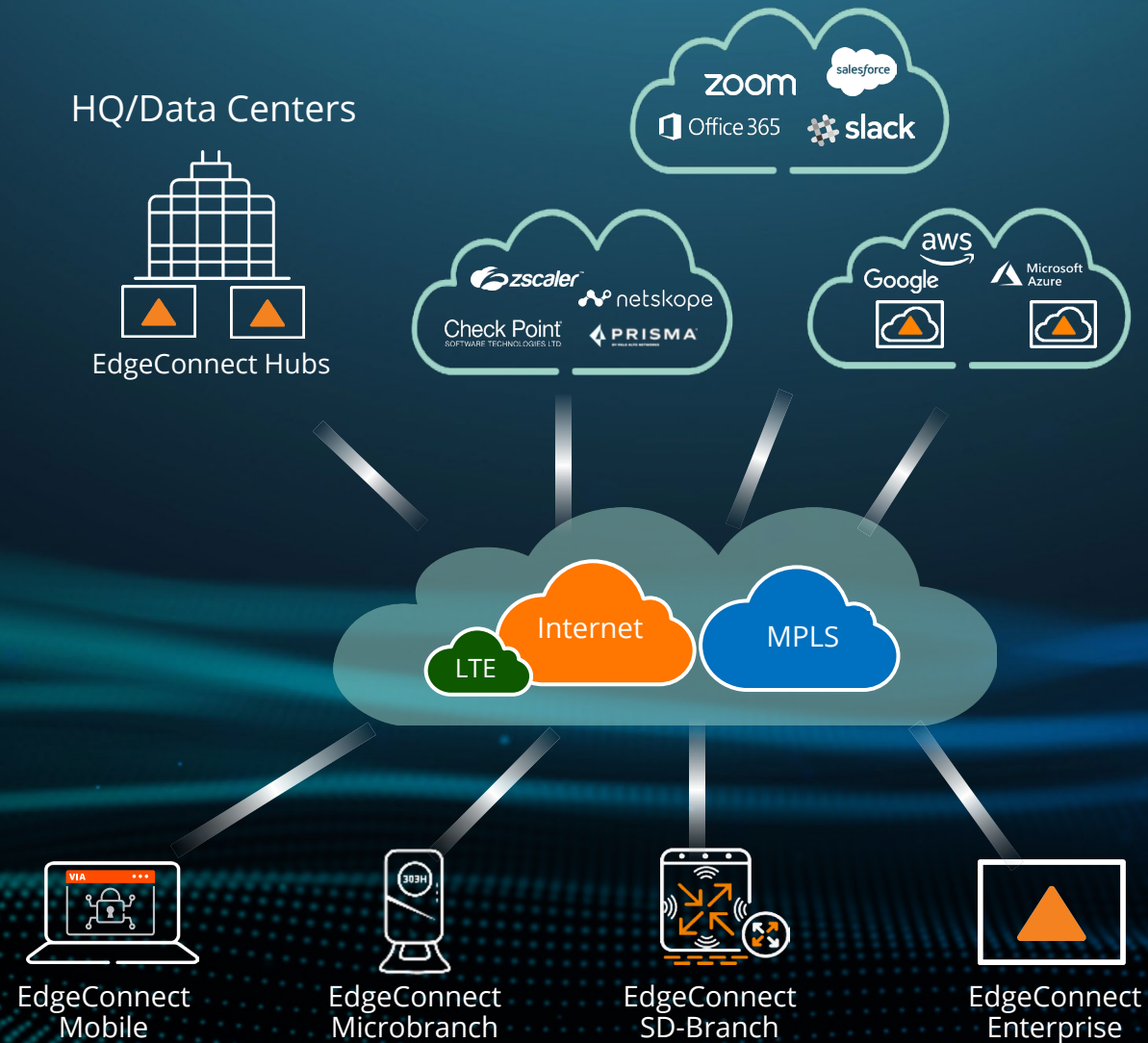
# MICROBRANCH HYBRID WORKPLACE SOLUTION

SECURE, IN-OFFICE EXPERIENCE TO EMPLOYEES ANYWHERE





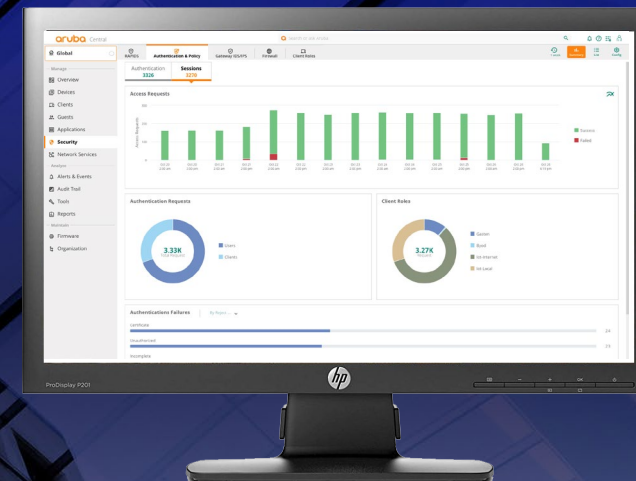
# A UNIFIED SD-WAN FABRIC





# SOLVING CUSTOMER CHALLENGES INTRODUCING CLOUD AUTH

## ARUBA CENTRAL



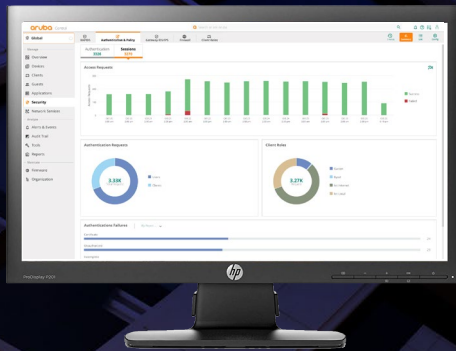
Integrated creation of roles and authentication/authorization workflows.  
Built into Aruba Central Cloud for simplicity.  
A shift to cloud-managed NAC.





# MODERN EDGE TO CLOUD SECURITY

## BENEFITS TO IT



Visibility into  
authentication  
traffic patterns  
through dashboards



Authentication  
validated  
against cloud identity  
stores to grant access



Leverages Central  
Client Insights for  
accurate profiling and  
behavior monitoring.





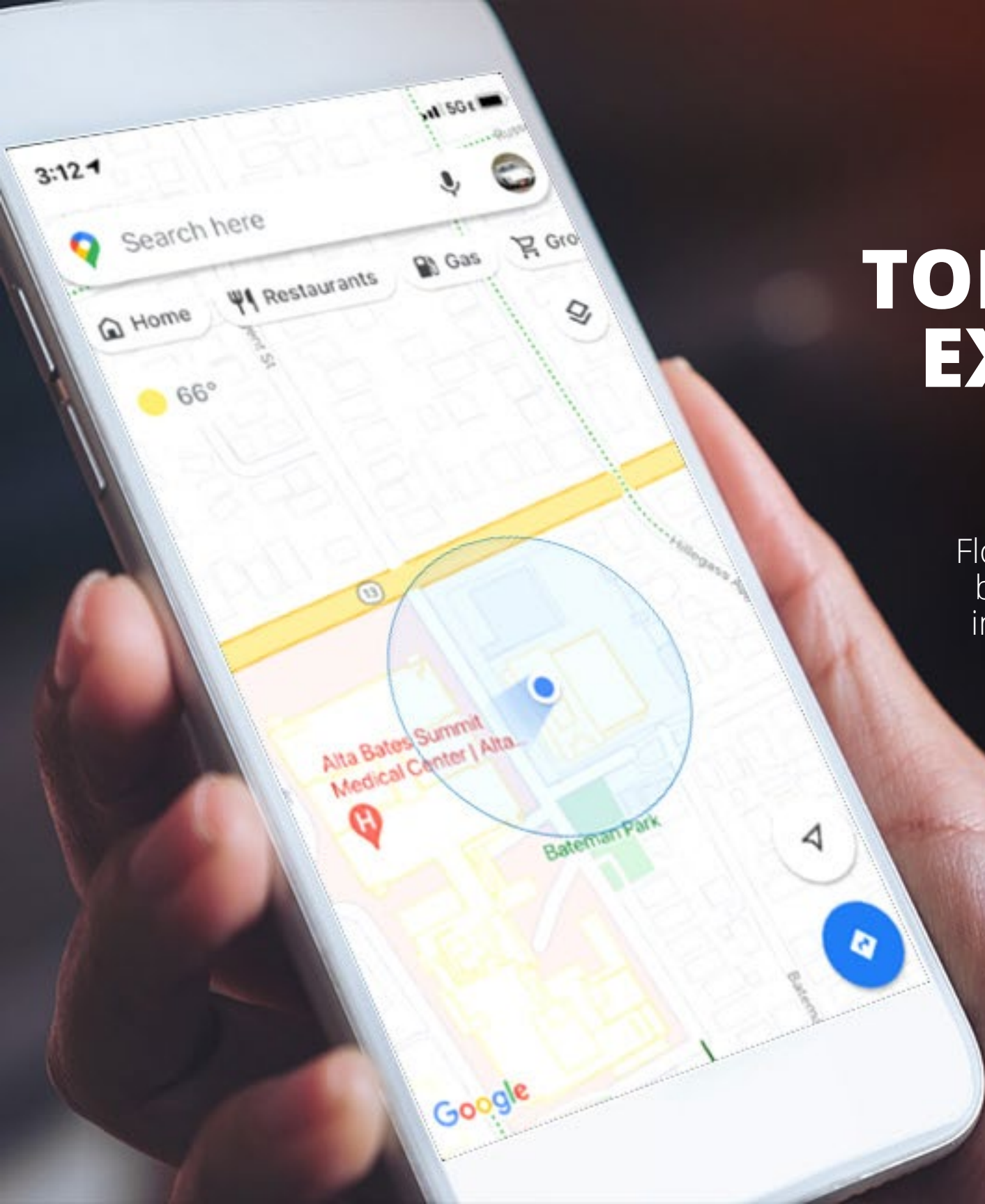
aruba

a Hewlett Packard  
Enterprise company

# AIOPS ANALYZE & ACT







# TODAY'S INDOOR LOCATION EXPERIENCE IS LACKING...

**#1**

Floorplans cannot be relied on for indoor accuracy

**#2**

Traditional Wi-Fi and Bluetooth ranging techniques are poor

**#3**

Software requires extensive custom development





# DETERMINING A CLIENT DEVICE'S PRECISE LOCATION REQUIRES **ABSOLUTE REFERENCE POINTS**

LATITUDE



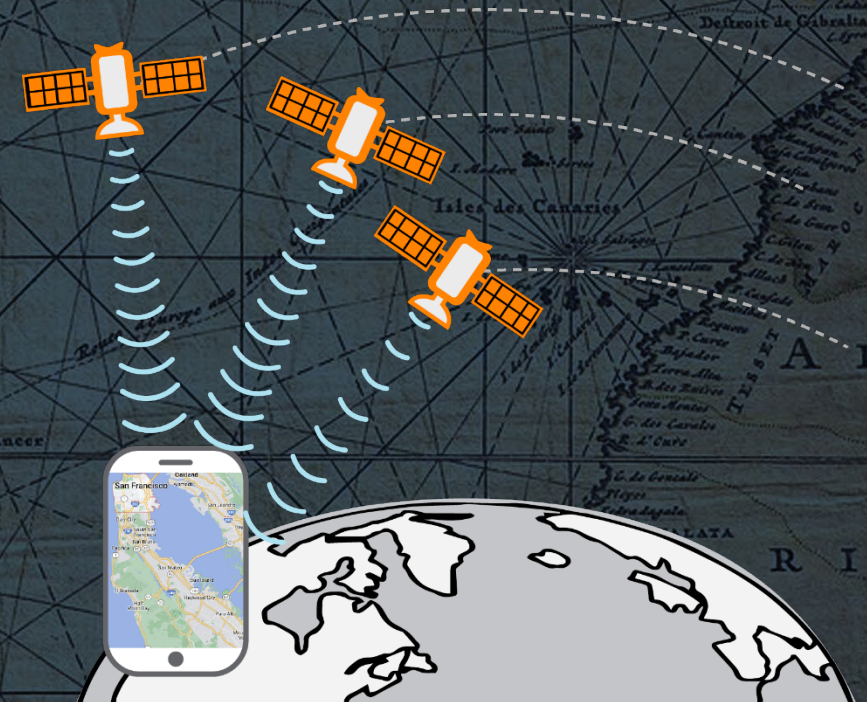
North Star

LONGITUDE



Greenwich Mean Time

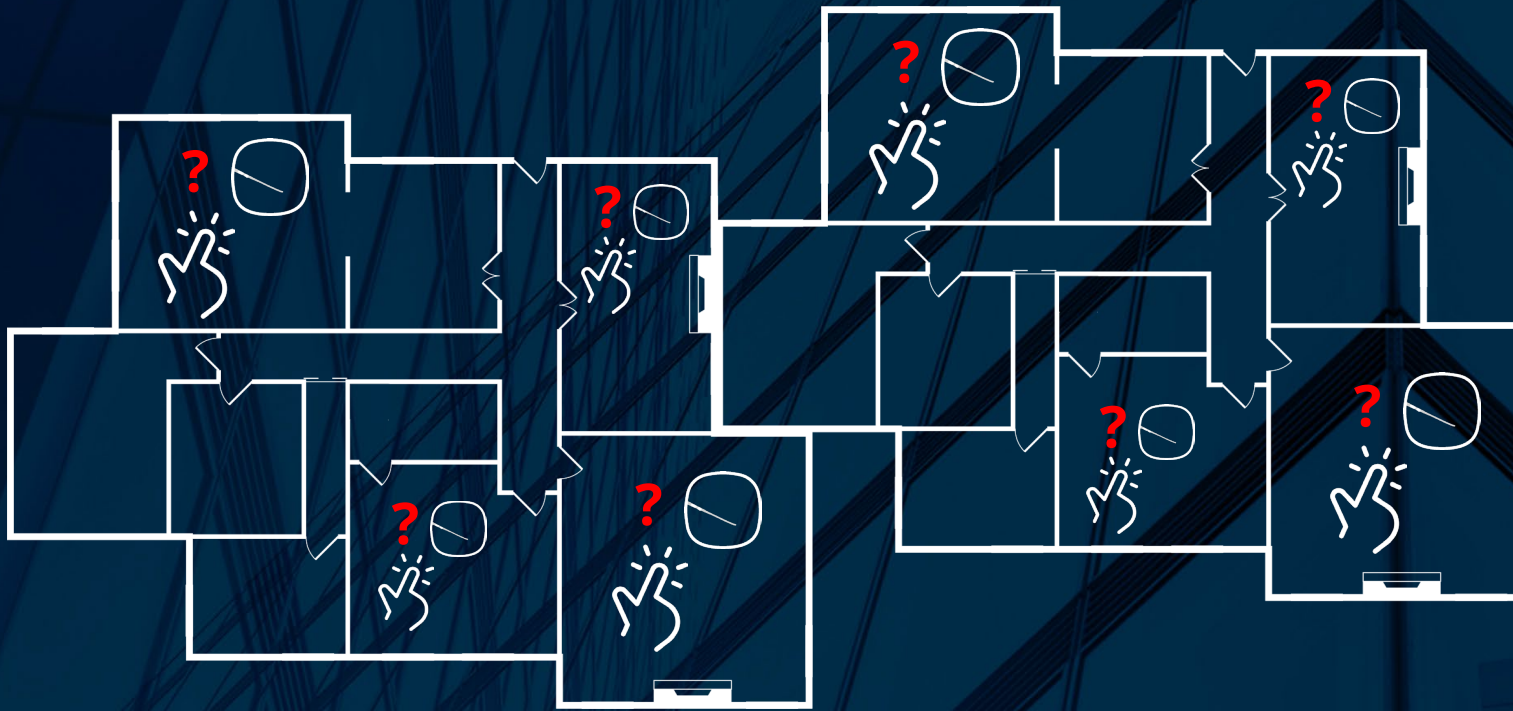
SATELLITE NAVIGATION



Orbital Position



# WHAT'S WRONG WITH INDOOR APs AS ABSOLUTE REFERENCE POINTS?



80% of Wi-Fi APs are not mapped

Placement errors of 5-10 meters

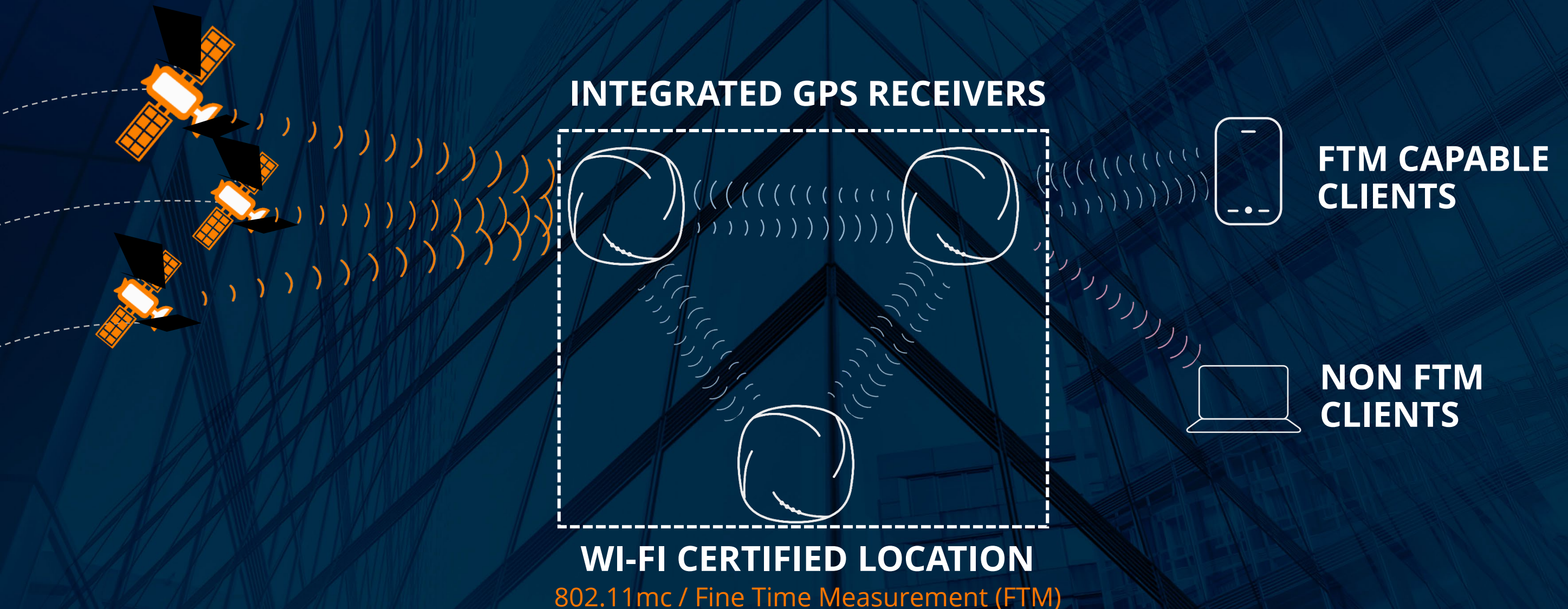
Floor plans are 2D-only

Not synced with Google /  
Apple / Bing Maps





# INTRODUCING **OPEN LOCATE** WORLD'S FIRST SELF-LOCATING WIRELESS NETWORK





# THE ARUBA ADVANTAGE

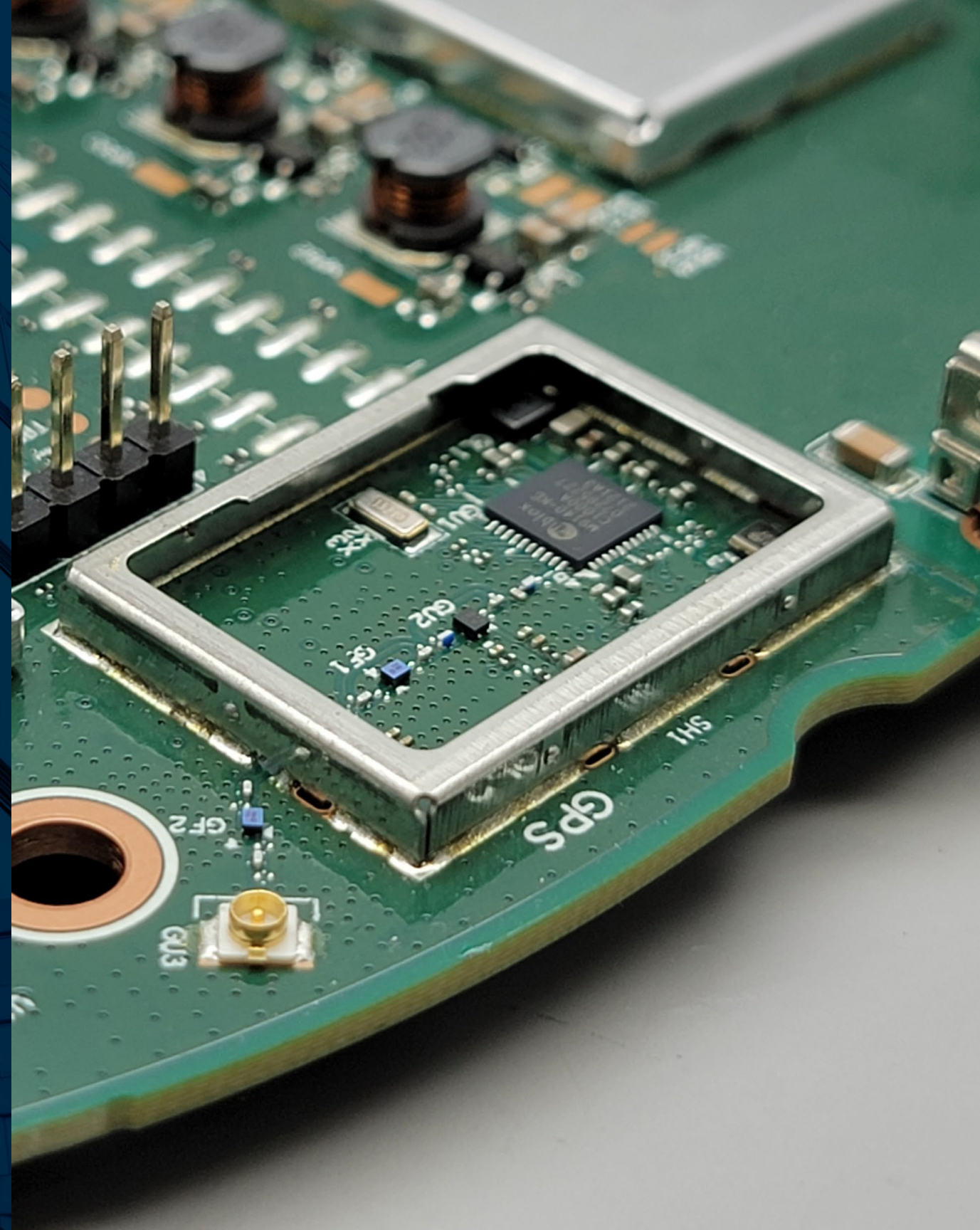
Automatic AP location discovery

Aruba AP interoperability  
with Google / Apple / Bing Maps

Enabling developers to use  
our location data

Ready for outdoor 6 GHz use\*

\*pending regulatory approval





# OPEN LOCATE-READY ACCESS POINTS

## WI-FI 6E AND WI-FI 6 PORTFOLIO

PREPARE FOR DIGITAL ACCELERATION WITH ARUBA WI-FI 6E & WI-FI 6

GPS RECEIVER



new



650 Series



630 Series



550 Series



530 Series



510 Series



500 Series



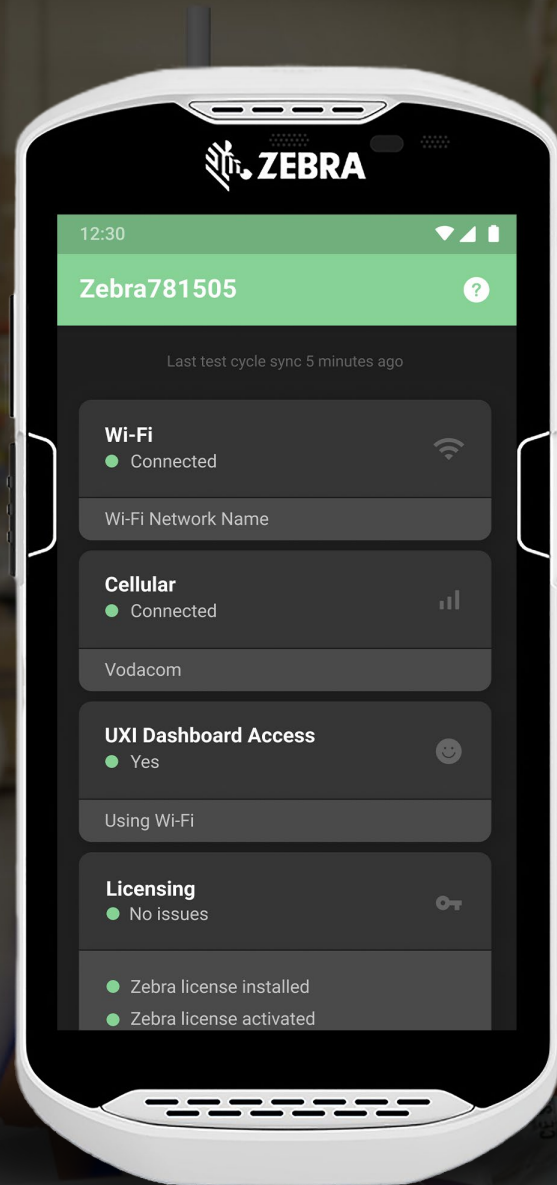
500H Series

FINE TIME MEASUREMENT

Upgrade today to take advantage of  
advanced location capabilities







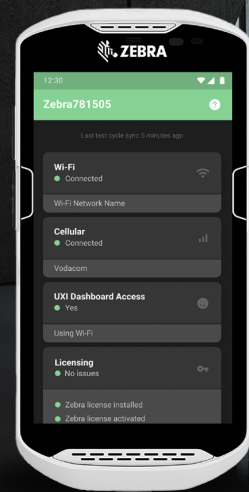
**UXI AGENT FOR ZEBRA**



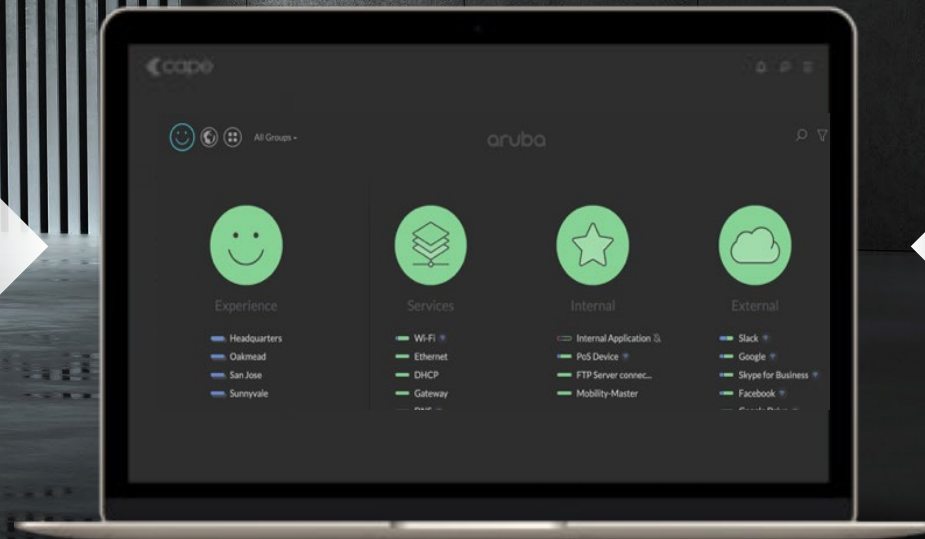


# HELPING LoB WITH DIGITAL ACCELERATION **PROBLEM RESOLUTION**

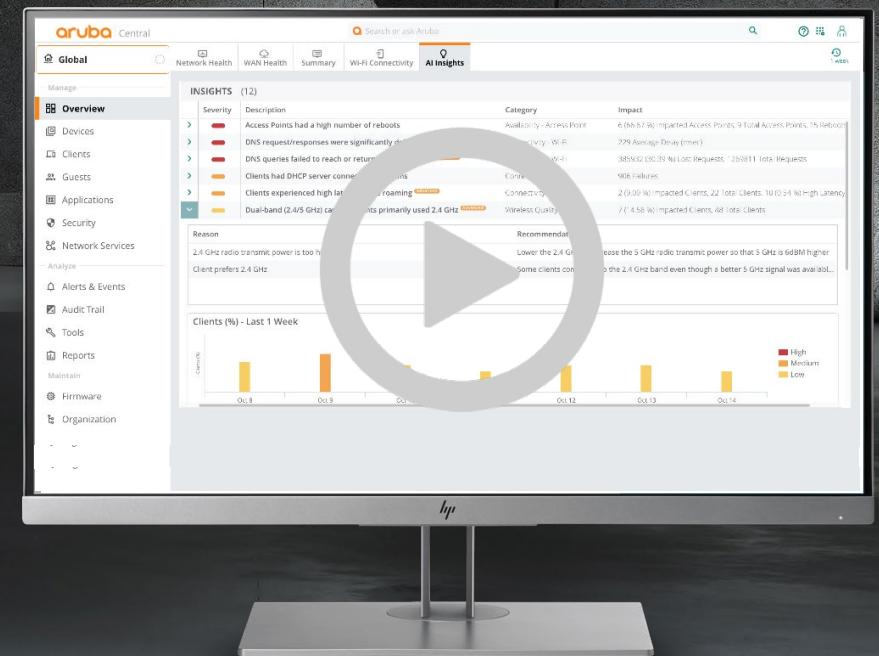
UXI Agent



User Experience Insight



Aruba Central (Open Locate)



Open Locate data from Aruba Central  
enhances UXI analytics and assurance





# The way forward

## HPE has a **unique vantage point** rooted in our own sustainability journey

Commitment to be a net-zero enterprise across our entire value chain by 2040 with near-term goals by 2030

**~50%**

of renewable electricity sourced in our operations on our way to 100% by 2030<sup>1</sup>

**6000+**

patents for transformational low-carbon technologies filed since 2000<sup>3</sup>

**85%**

of tech returned to HPE is upcycled and put back into active use<sup>2</sup>

**>500**

Social and Environmental Responsibility audits conducted with suppliers

<sup>1</sup>HPE Living Progress Report, 2021

<sup>2</sup>HPE Financial Services Technology Renewal Center Information

<sup>3</sup> Based on HPE internal records

<sup>4</sup> 2021 Living Progress Data Summary, 2022

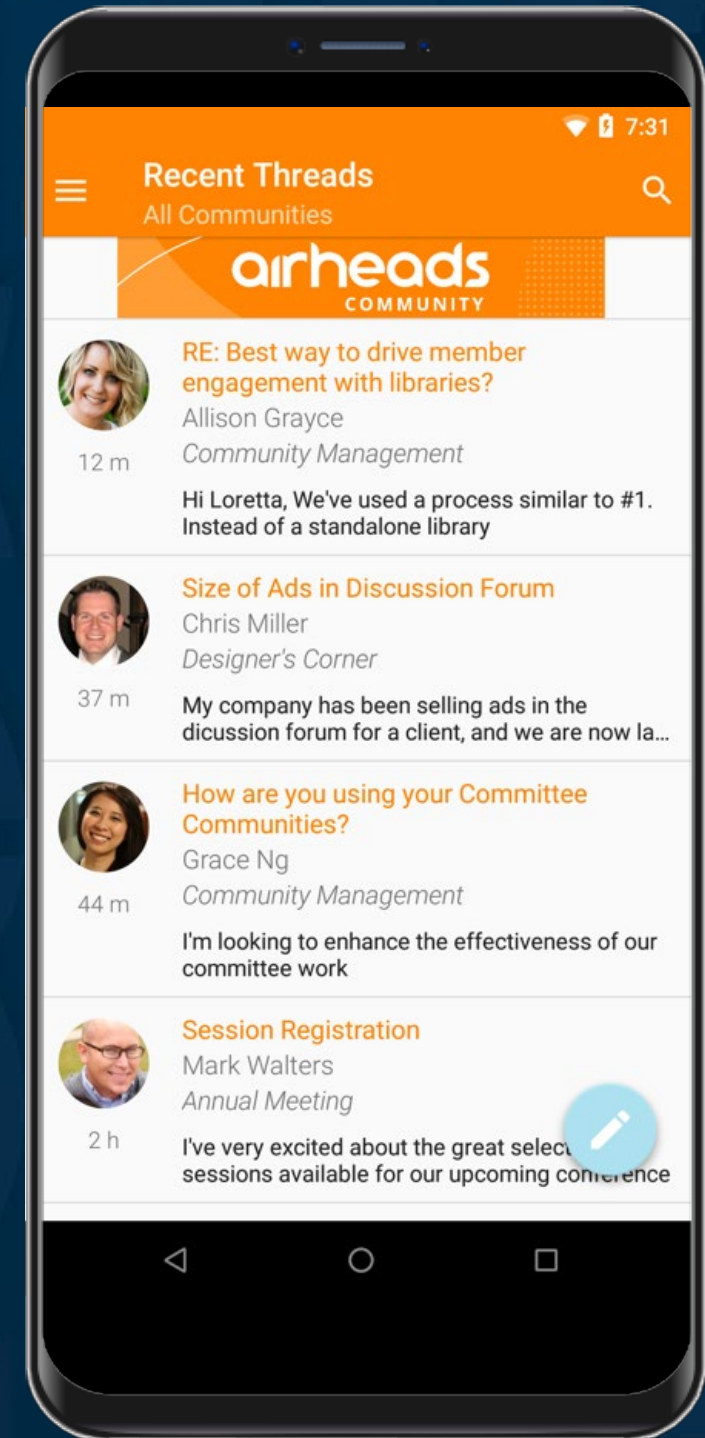


# airheads

## COMMUNITY

Still not part of the Airheads Community?

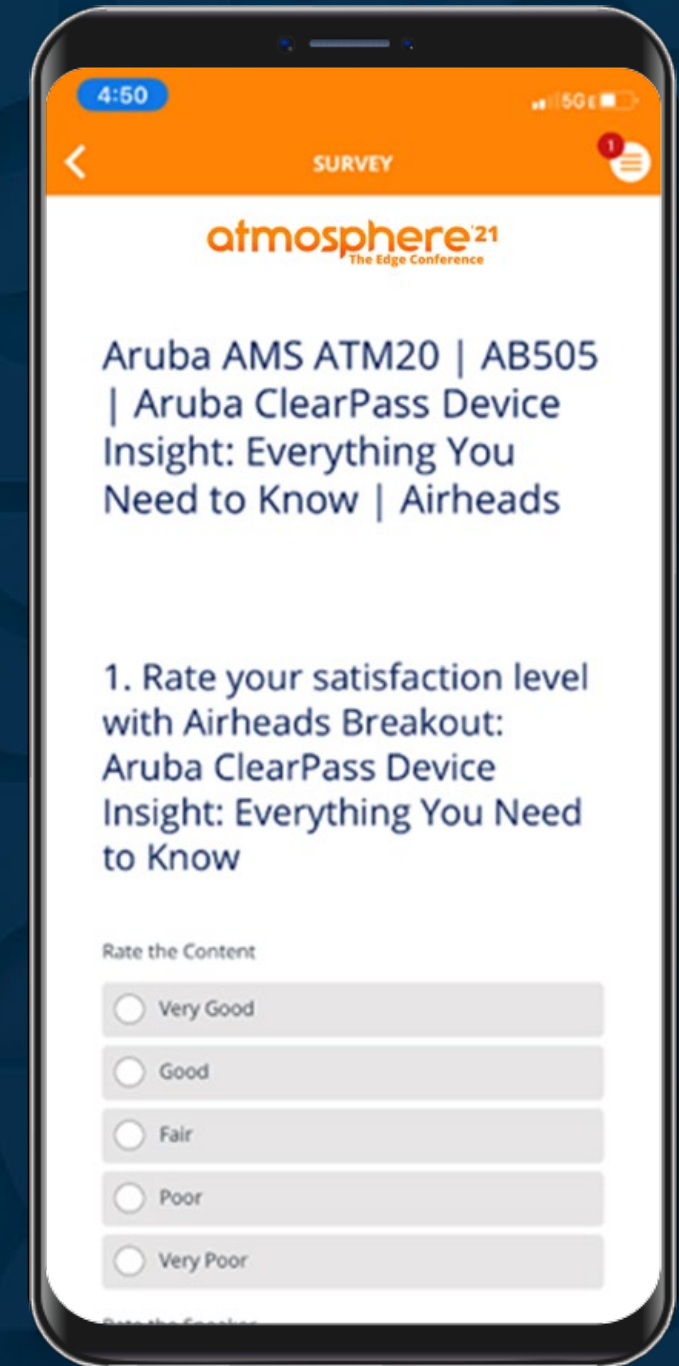
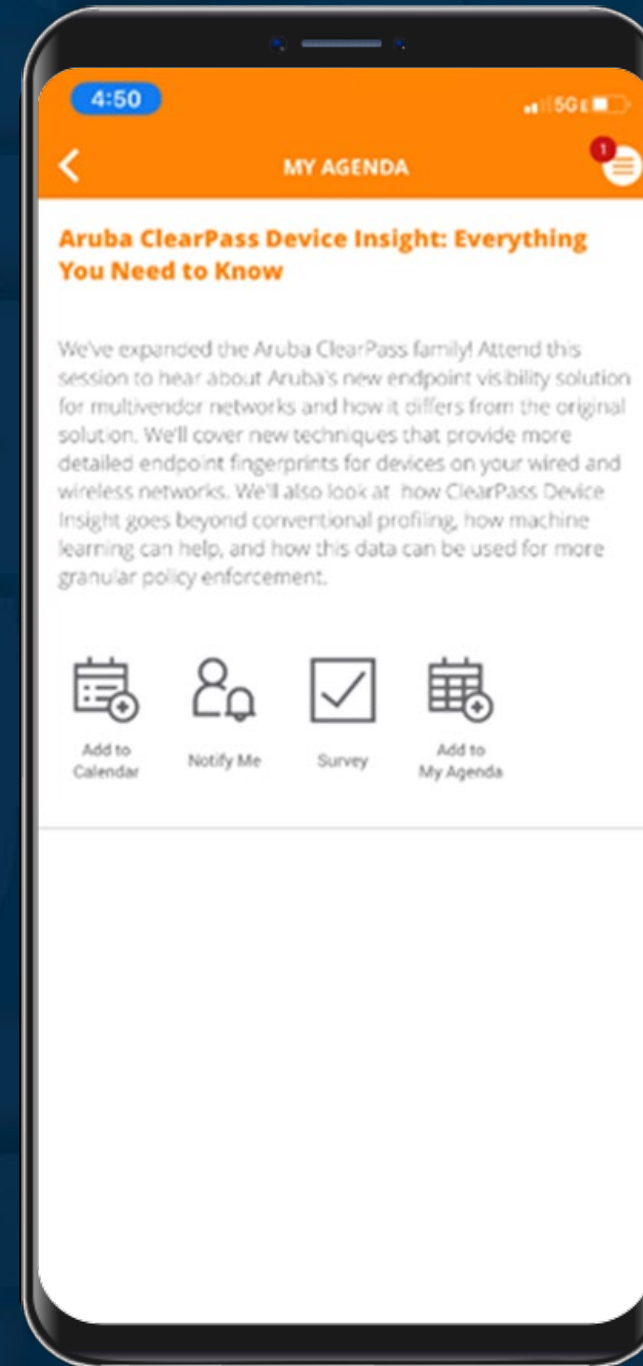
Sign up today:  
[www.community.arubanetworks.com](http://www.community.arubanetworks.com)





## Please give us your feedback:

- ✓ Click on "Agenda" icon
- ✓ Click on the session
- ✓ Tap the "Survey" icon









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## BELGIUM

# Thank you



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